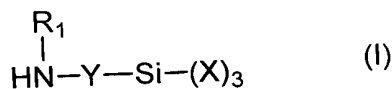


WHAT IS CLAIMED IS:

1. The present invention relates to a process for preparing a moisture-curable, alkoxy silane-functional polyether urethane by reacting at an NCO:OH equivalent ratio of 1.5:1 to 2.5:1
  - 5 a) a hydroxyl component containing
    - i) 20 to 100% by weight, based on the weight of component a), of a polyether containing two hydroxyl groups and one or more polyether segments, wherein the polyether segments have a number average molecular weight of at least 3000 and a degree of unsaturation of less than 0.04 milliequivalents/g, provided that the sum of the number average molecular weights of all of the polyether segments per molecule averages 6000 to 20,000, and
    - 10 ii) 0 to 80% by weight, based on the weight of component a), of a polyether containing one hydroxyl group and one or more polyether segments having a number average molecular weight of 1000 to 15,000, with
  - b) an isocyanate component containing
    - i) 20 to 100% by weight, based on the weight of component b), of a compound containing two isocyanate groups, and
    - 20 ii) 0 to 80% by weight, based on the weight of component b), of a compound containing one isocyanate group,
- to form an isocyanate-containing reaction product and subsequently reacting this reaction product at an equivalent ratio of isocyanate groups to isocyanate-reactive groups of 0.8:1 to 1.1:1 with
- 25 c) compounds containing an isocyanate-reactive group and one or more reactive silane groups selected from
  - i) compounds corresponding to formula I

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wherein

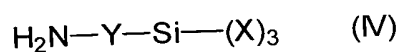
- X represents identical or different organic groups which are inert to isocyanate groups below 100°C, provided that at least two of these groups are alkoxy or acyloxy groups,
- 5 Y represents a linear or branched alkylene group containing 1 to 8 carbon atoms and
- R<sub>1</sub> represents an organic group selected from alkyl, cycloalkyl or aromatic groups having from 1 to 12 carbon atoms and a group corresponding to formula II

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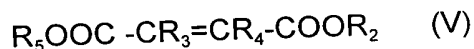


ii) the reaction product of aminosilanes corresponding to formula IV

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with maleic or fumaric acid esters corresponding to formula V



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wherein X and Y are as defined above,

R<sub>2</sub> and R<sub>5</sub> are identical or different and represent alkyl groups having 1 to 4 carbon atoms, and

R<sub>3</sub> and R<sub>4</sub> are identical or different and represent hydrogen or organic groups which are inert towards isocyanate groups at a temperature of 100°C or less,

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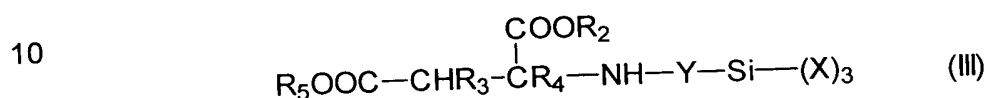
to form a moisture-curable, alkoxysilane-functional polyether urethane, provided that total percentages of a-ii) and b-ii) add up to at least 10.

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2. The process of Claim 1 wherein

- X represents identical or different alkoxy groups having 1 to 4 carbon atoms,
- Y represents a linear radical containing 2 to 4 carbon atoms or a branched radical containing 5 to 6 carbon atoms and
- 5 R<sub>1</sub> represents ethyl.

3. The polyether urethane of Claim 1 wherein at least 10 mole % of component c) is a compound corresponding to the formula



wherein

- X represents identical or different alkoxy groups having 1 to 4 carbon atoms,
- 15 Y represents a linear radical containing 2 to 4 carbon atoms or a branched radical containing 5 to 6 carbon atoms and
- R<sub>2</sub> and R<sub>5</sub> are identical or different and represent alkyl groups having 1 to 4 carbon atoms and
- R<sub>3</sub> and R<sub>4</sub> represent hydrogen.

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4. The process of Claim 1 wherein component a-i) is present in an amount of 20 to 90% by weight, based on the weight of component a); and component a-ii) is present in an amount of 10 to 80% by weight, based on the weight of component a).

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5. The process of Claim 2 wherein component a-i) is present in an amount of 20 to 90% by weight, based on the weight of component a); and component a-ii) is present in an amount of 10 to 80% by weight, based on the weight of component a).

6. The process of Claim 3 wherein component a-i) is present in an amount of 20 to 90% by weight, based on the weight of component a); and component a-ii) is present in an amount of 10 to 80% by weight, based on the weight of component a).

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7. The process of Claim 1 wherein component b-i) is present in an amount of 20 to 90% by weight, based on the weight of component b); and component b-ii) is present in an amount of 10 to 80% by weight, based on the weight of component b).

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8. The process of Claim 2 wherein component b-i) is present in an amount of 20 to 90% by weight, based on the weight of component b); and component b-ii) is present in an amount of 10 to 80% by weight, based on the weight of component b).

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9. The process of Claim 3 wherein component b-i) is present in an amount of 20 to 90% by weight, based on the weight of component b); and component b-ii) is present in an amount of 10 to 80% by weight, based on the weight of component b).

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10. The process of Claim 1 wherein component a-i) is present in an amount of 30 to 80% by weight, based on the weight of component a); component a-ii) is present in an amount of 20 to 70% by weight, based on the weight of component a); and at least 80 mole % of component c) is a compound corresponding to the formula I.

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11. The process of Claim 2 wherein component a-i) is present in an amount of 30 to 80% by weight, based on the weight of component a); component a-ii) is present in an amount of 20 to 70% by weight, based on

the weight of component a); and at least 80 mole % of component c) is a compound corresponding to the formula I.

12. The process of Claim 3 wherein component a-i) is present in an amount of 30 to 80% by weight, based on the weight of component a); component a-ii) is present in an amount of 20 to 70% by weight, based on the weight of component a); and at least 80 mole % of component c) is a compound corresponding to the formula III.

13. The process of Claim 1 wherein component b-i) is present in an amount of 30 to 80% by weight, based on the weight of component b); component b-ii) is present in an amount of 20 to 70% by weight, based on the weight of component b); and at least 80 mole % of component c) is a compound corresponding to the formula I.

14. The process of Claim 2 wherein component b-i) is present in an amount of 30 to 80% by weight, based on the weight of component b); component b-ii) is present in an amount of 20 to 70% by weight, based on the weight of component b); and at least 80 mole % of component c) is a compound corresponding to the formula I.

15. The process of Claim 3 wherein component b-i) is present in an amount of 30 to 80% by weight, based on the weight of component b); component b-ii) is present in an amount of 20 to 70% by weight, based on the weight of component b); and at least 80 mole % of component c) is a compound corresponding to the formula III.

16. The process of Claim 1 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

17. The process of Claim 2 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

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18. The process of Claim 3 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

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19. The process of Claim 4 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

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20. The process of Claim 10 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

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